



August 18, 2014

Mr. Michael P. Cascino
Cascino Vaughan Law Offices, Ltd
220 South Ashland
Chicago, IL 60607-5308

Sub: Mrs. Sharon Heckel

Re: 14-142

Dear Mr. Cascino;

I appreciate the opportunity to review this interesting case. My opinions are based on the information provided by your office, the scientific literature, my education and experience, and information generally relied upon by members of my profession. My CV is attached to this report.

Background

Mr. Brian Heckel testifies that the Heckels lived on Doege Street starting in 1966 which was some five - six blocks north the Weyerhaeuser plant. In 1970 or 1971 they moved to a house on Hinman Street which is approximately one mile from the plant. They lived there for approximately seven years. A landfill used by Weyerhaeuser was located some quarter of a mile from the Hinman Street residence.

Brian's mother, Sharon Heckel, worked in the Mineral Core area at the Weyerhaeuser plant in approximately 1973 – 1974 time frame. When she came home her clothes were "dirty". Brian's mother did all the family washing of clothes.

Workers in the Core Room were required to wear the 3M 8710 dust mask.

Marshfield, WI

Marshfield is a town of some 20,000 residents located in central Wisconsin. The Roddis/Weyerhaeuser plant is a major local industry and it is located within the city.

Roddis/Weyerhaeuser Door Plant, Marshfield, WI

The Roddis Plywood Co. manufactured asbestos cored fire doors starting in the late 1950's. The plant was bought by Weyerhaeuser in 1960 and continued to manufacture asbestos containing fire doors using purchased Kaylo block insulation. In 1968 Weyerhaeuser began manufacturing the asbestos containing cores, under a license from Owens-Illinois, and constructing the fire doors in a separate building. Kaylo insulation contained both Amosite [10%] and Chrysotile [5%] asbestos forms. A review of invoices from Owens-Illinois estimated some 15,318 pallets [1,287,712 pieces] of Kaylo were delivered between 1960 and 1972, the vast majority by rail. The Kaylo block was mostly 18" x 36" x 1 11/16" but 12' x 36' and 8" x 36" were also purchased. The plant ceased manufacturing asbestos core fire doors in 1978.

Asbestos waste from the cutting and sanding dust collection system, using a cyclone separator, was installed in approximately 1959. The cyclone separator was either replaced or supplemented with fabric “bag” filters in the early 1970s because of chronic visible emissions problems. Also, apparently the bag filters would break frequently and dust would be emitted from the bag house into the environment. Mr. Everette Burt testifies that when the bags would break he could see the dust from his house at 413 East Depot Street, some five to six blocks north west of the plant. He also remembers dust complaints from the local community. Mr. Charles Reno testifies that when the bags broke the dust would, “Shoot up like a geyser” out of the bag house stack.

Mr. Elwood Schiller would use a front end loader to scoop up the Kaylo dust, drive it through the main gate and dump it into ponds, previously used for soaking logs, after everyone went home for the day. He describes the dust as “fine and white”. At some point the waste was emptied into trucks and carried through the town to the local dump for ultimate disposal. Both the loading and dumping process were very dusty. Mr. Charles Reno, while driving a waste truck to the dump testified that, “If you start driving, all the sudden you look back, and its white back there”. He also testified that when a front end loader, full of waste, went into the street, “boy, you’d see just a cloud behind it and a cloud ahead of it”. There were many complaints from the community that dust was blowing out of these trucks, especially if they were not covered. One 23 minute sample [#143 WY02-000128] collected in October 1976 was identified as “Load Waste in Truck” indicated some 2.68 f/cc. Another sample in 1976 measured some 1.34 f/cc [WY02-000138]; another in 1977 1.1 f/cc [WY02-000434]. The OSHA standard at this time was 2 f/cc. No later than the 1973 National Emission Standards for Hazardous Air Pollutants¹ the plant was required to have “no visible emissions”.

In a report by Mr. Allen [“Marshfield, An Environmental History, August 1975”, WEYER 045-055] he provides a chronology of plant emission problems starting in 1959. He quotes a letter stating, “Our problem is still the heavy accumulation in the yards and parking lot. At times the dusty condition at the ground level can be compared to falling snow”. These emission problems appear to continue for many years. Mr. James Genett testifies that the Boy Scout troop, “came out and picked up along the roads after the neighbors griped long enough”.

This record includes the results of a series of air sampling conducted between approximately 1970 and 1976 in the core manufacturing areas. The results indicate significant concentrations of asbestos were continuously being released into the work place. These airborne concentrations plus any physical contact with the Kaylo or its residue would have significantly contaminated the workers’ person as well as their clothes.

Evidence of Mrs. Heckel’s Asbestos Exposures

Mrs. Sharon Heckel was exposed to airborne asbestos fibers in the following ways and from the following sources:

- Mrs. Heckel, while working in the core mill was exposed to airborne asbestos fibers as well as coming in contact with asbestos containing materials. Both events resulted in asbestos contamination of both his person and her work clothes. She carried this contamination out of the plant and into her house. This resulted in significant

contamination of the house. Also, when she disturbed her contaminated clothing in the car or house asbestos fibers would have been released into her breathing zone;

- Mrs. Heckel's houses were in close proximity to the rout of the trucks, some of which were hauling asbestos wastes to the dump. Testimony indicates these trucks emitted much dust into the community. Mrs. Heckel would have been exposed to some of these emitted asbestos fibers;
- The testimony indicates that there was wide spread contamination of the entire community from visible emissions from the plant including the asbestos core manufacturing and fire door construction process; and
- Based of the air sampling conducted in the Core Mill Mrs. Heckel was frequently exposed to significant airborne concentrations of asbestos. The 3M 8710 dust mask that she most likely wore was inadequate to protect her from the airborne asbestos fibers she was exposed to.

Scientific Literature and Other Relevant Information

Family Exposures from Contaminated Work Clothes

The potential for carrying hazardous materials home and exposing other people has been known for centuries. Ramazzini, in 1713, described diseases found in laundresses who, "wash bed-linen and underclothes stained with a thousand kinds of filth... they inhale by mouth and nose a mixture of harmful vapors of all sorts".²

In 1913 Tolman et al, in their textbook "Safety", recognized the hazards associated with carrying "poisons" home on work clothes when they stated, "By removing the working-clothes before meals and before leaving the factory the poison is not carried into the lunchrooms or into the homes of the workers."³

The US Department of Labor issued safety and health standards in 1951 that included the requirement that, "Workers who handle or are exposed to harmful materials in such a manner that contact of work clothes with street clothes will communicate to the latter the harmful substances accumulated during working hours should be provided with facilities which will prevent this contact and also permit the free ventilation or drying of the work clothes while they are not in use."⁴

In 1960 Wagner et al published their landmark study showing the prevalence of Mesothelioma in household contacts and residents near asbestos mines.⁵

My own training, in the 1960's, stressed the problems inherent in carrying clothing, contaminated with hazardous materials, from the worksite.

The National Safety Council published a Data Sheet on safety procedures for handling hazardous materials in industry. This 1963 document recommended, "Good washing facilities, clean lunchrooms, and clean clothes can help prevent additional, even though minor, exposure to toxic materials. Also, contaminated work clothes should not be taken home where a toxic dust could contaminate the home or expose other members of the family."⁶

In 1965 Newhouse et al published their study showing a clear association of mesothelioma among household members (children and housewives) who's only known exposure to asbestos was contamination brought home by another household member with occupational exposure to asbestos.⁷

P. G. Harries, in 1968, published an article concerning the necessity of providing workers exposed to asbestos with protective clothing and respiratory protection as well as using typical engineering controls such as isolation and ventilation.⁸ He also reported mesothelioma in Boilermakers, Fitters, Laborers, Shipwrights, and Welders at the shipyard he studied.⁹

The National Institute for Occupational Safety and Health [NIOSH] reported, in 1972, cases of mesothelioma in children and house wives who washed the work clothes of family members who brought home asbestos contaminated clothing.¹⁰ They proposed to the Occupational Safety and Health Administration [OSHA] regulatory language to require employers to provide workers exposed to asbestos with separate "coveralls or similar full body protective clothing and hat".¹¹

The Occupational Safety and Health Administration [OSHA] promulgated its individual asbestos regulation in 1972.¹² It required issuance of protective clothing and the special handling of asbestos contaminated clothing during transport and laundering.

Anderson et al, in 1976, reported on their study of the disease status of household contacts of asbestos factory workers. They reported some 35% of all household contacts, who's only known exposure to asbestos, were from contamination brought home by a household member who was exposed to asbestos in their work place, had asbestos associated radiographic abnormalities.¹³ In their 1979 follow-up study they had identified five household contacts with Mesothelioma.¹⁴

Sawyer in 1977 reports on an investigation of asbestos exposure concentrations in a college building.¹⁵ As part of their studies they collected the work clothes of abatement workers and laundered them. They collected 12 personal air samples while washing some 40 sets of work clothes. Results averaged 0.4 f/cc [SD 0.2 f/cc] with the highest concentration of 1.2 f/cc. They also took area samples:

- Picking up clothes – 4 samples, Ave= 0.4 f/cc , SD 0.1 f/cc;
- Loading Washer – 5 Samples, Ave = 0.4 f/cc, SD 0.1 f/cc; and
- Loading Dryer – Ave = 0.0 f/cc [Sic].

Bellin summarized the more current literature on this subject in 1981.¹⁶ She reviews cases of mesothelioma among wives and children of asbestos workers whose asbestos exposure was from washing the workers' clothing.

Grandjean et al summarized the literature concerning indirect exposure to hazardous materials, including asbestos.¹⁷ The literature clearly establish asbestos related diseases among household members who's only known exposure arose from living in the same house or handling contaminated clothing of other members who were occupationally exposed to asbestos.

In 1992 the US Congress requested NIOSH to conduct a study to "evaluate the potential for, the prevalence of, and the issues related to the contamination of worker's homes with

hazardous chemicals and substances ... transported from the workplaces of such workers".¹⁸ NIOSH issued their report in 1995 with an entire section devoted to asbestos.¹⁹ NIOSH²⁰ concluded:

- "Families of asbestos-exposed workers have been at increased risk of pleural, pericardial, or peritoneal mesothelioma, lung cancer, cancer of the gastrointestinal tract, and non-malignant pleural and parenchymal abnormalities as well as asbestosis"; and
- "The occupations associated with asbestos-related disease in family members are those where workers were exposed to asbestos dust during: construction and renovation; prospecting and mining; manufacturing textiles, tiles, boilers, and ovens; shipbuilding and associated trades; certain railroad shop trades; welding; insulation; use and manufacture of asbestos products such as cords, seals, and plates; and renovation and demolition projects within the construction industry."

Roggli, et al, reviewed 1445 cases of mesothelioma and classified them by occupational exposure to asbestos.²¹ He identified 86 cases he classifies as household contacts where the only known exposure was from another household member who was an asbestos worker.²²

Carter measured the airborne concentrations of asbestos created from asbestos contaminated laboratory coats worn by workers who were simulating operating small machines in an unventilated room and handling, carrying and stacking asbestos containing cement board.²³ He measured airborne concentrations between 3.3×10^5 and 2.4×10^6 Fibers per cubic meter [0.3 f/cc to 2.4 f/cc].

In my practice, I had a shirt, worn by a worker that had come into contact with asbestos containing materials, analyzed for surface contamination. Results indicated Asbestos fibers present at a level over 100,000 structures per square centimeter.²⁴

The National Institute for Occupational Safety and Health (NIOSH) conducted an experiment where they measured the airborne concentrations of asbestos generated from shaking an empty burlap bag that had contained pure asbestos.²⁵ The only source of asbestos was that remaining as contamination of the bag. The people conducting the experiment were exposed to airborne concentrations as high as 570 f/cc (>5 micron).

Schneider et al reported on five cases of mesothelioma seen in their clinic.²⁶ The patients had no history of occupational exposure to asbestos but resided in the household of workers who had been occupationally exposed asbestos. They concluded that their only exposure to asbestos was from the clothing and shoes of the exposed workers. Patient exposures began in the 1950's or 1960's and the latency period ranged from 17 to 42 years. Fathers work activities included manufacturing asbestos containing products, turbine repair, and insulator.

Longo conducted a series of experiments to estimate asbestos fiber release from contaminated clothing.^{27,28,29} Under controlled conditions, they contaminated typical work clothing by handling asbestos containing insulation. They then shook and brushed the clothes to represent someone, like a house wife, cleaning the dust off prior to placing into the washing machine. The clothes were shaken for approximately 1 minute. The operation took 7-8 minutes including, shaking, brushing and placing the clothes into the washing machine. Exposure

concentrations experienced by the person handling the contaminated clothing ranged from 5.74 f/cc to 26.5 f/cc [PCM].

Mangold conducted a series of experiments to determine the exposure concentrations generated solely by contaminated clothing.³⁰ Results were as follows:

1. Heavily contaminated coveralls used during rip out of pipe insulation [3 samples]. Results = 1, 1.8, and 1.5 f/cc [Average = 1.4 c/cc];
2. Medium contaminated coveralls worn three days before change [3 samples]. Results = 0.2, 0.5, and 0.8 f/cc [Average = 0.5 f/cc];
3. Lightly contaminated coveralls worn three days before change [3 samples]. Results = 0.1, 0.2, and 0.05 f/cc [Average = 0.1 f/cc].

Donovan et al recently reviewed the literature on take home exposures to family members.³¹ In general they confirm what industrial hygienists have known for some 100 years that work clothing contaminated with hazards materials will expose household members if taken home and that exposure concentrations can be significantly above typical ambient concentrations. Unfortunately, they also make several critical and fatal assumptions:

1. All work clothing contamination is a direct result of airborne concentrations. This is incorrect. In my many years of working with hazardous particles [radioactive materials, heavy metals and asbestos] it is the physical contact of the hazardous material with the work clothes that contributes the majority of contamination. It is easy to have significant clothing contamination from physical contact and have low or non-measurable airborne concentrations at the time the contamination occurred. This aspect is well demonstrated by Donovan's Figure 2;
2. Household exposures are limited to airborne concentrations generated during the laundering and handling of contaminated clothing. This is also not correct. Many workers embrace their family members upon return from work. Physical contact with contaminated clothing exposes that person as well as contaminates their clothing. Both activities result in additional exposure.
3. Every fiber released into a house is somewhere today and is potentially available for becoming airborne. This includes contamination of furniture the worker sat in while wearing his contaminated clothing, etc. Contamination of the house's contents can result in additional family exposures long after the work clothes have been washed.
4. Washing eliminates the presence of asbestos on contaminated clothing. This also is incorrect as shown by Donovan's own review of Revell's work which showed significant asbestos contamination still existed on contaminated towels after washing and that they were still capable of releasing asbestos fibers when manipulated;
5. A worker must be exposed in excess of the OSHA PEL before work clothing presents a risk to family members. I have not seen any scientific support for this theory and for the reasons above I do not agree with it; and
6. The use of the OSHA PEL as a scale of risk for household members. This is incorrect for several reasons:
 - a. The OSHA PEL is professionally, and legally, only applicable to workers in the workplace and not to household members; and
 - b. All the occupational exposure limits [PEL, TLV, REL, etc] are meant for populations of healthy workers and not children, the old or the infirm. In

fact the ACGIH specifically prohibits the use of their TLVs for such purposes. In my experience, many people who have developed mesothelioma were first exposed as infants or children.

There are other criticisms which I leave to others.³²

This review of available scientific literature and other applicable information indicates:

1. Family exposures to hazardous dusts brought home by other family members, whose occupation brought them into contact with the dust, has been recognized for at least a century;
2. The contaminated clothing can release fibers into the breathing zone of other family members;
3. Contaminated workers can transfer fibers to other householders' clothing furniture, towels, bedding etc.;
4. Family members are exposed to airborne concentrations of asbestos as a result of coming in contact or manipulating contaminated clothing;
5. Household background contamination most likely results in ongoing asbestos exposures long after the work clothes were washed; and
6. Exposure concentrations can be substantially similar as those experienced by tradesmen working with asbestos containing materials.

Neighborhood Exposures

It should come as no surprise that people living in the neighborhood of asbestos mines and manufacturing plants using asbestos would be exposed to the dust emissions, including asbestos, from those facilities. I can remember as a boy that we would have to turn on the car's headlights upon entering Pittsburgh, PA because the particulate pollution from the mills and other factories made day into dark.

More specific to asbestos, Wagner in his study of mesothelioma in asbestos mine workers identified housewives, domestic servants, cattle herders, farmers, an insurance agent and an accountant in the neighborhood who also developed mesothelioma but never worked in the mines.³³ Inase identified a woman with mesothelioma in Japan whose only exposure to asbestos occurred during her childhood as a result of asbestos exposure from the emissions from the town's factories.³⁴ Inase also summarized the literature on this issue including articles published from studies in the United States, Italy, The United Kingdom and South Africa.

In 1971 the Environmental Protection Agency [EPA] listed asbestos as a hazardous air pollutant.³⁵ In 1973 EPA promulgated a specific regulation banning the visible emission from manufacturing facilities, such as the Weyerhaeuser plant.³⁶ This regulation was promulgated in the clear recognition that such emissions presented a real health threat to the community and the environment.

3M 8710 Dust Mask

3M manufactured two disposable dust masks for protection from pneumoconiosis and fibrosis producing dusts. The 3M 8500 was manufactured in the 1960s and it was never certified. In 1972 3M received certification of their 8710 from the Bureau of Mines for protection against pneumoconiosis and fibrosis producing dusts [TC-21C-132]. The 3M 8710

uses the word "Asbestosis" on its label. Neither the Bureau of Mines nor its successor the National Institute for Occupational Safety and Health ever approved the 3M 8710 for protection against cancer.

There were many practical problems with the 3M 8710 that made it unusable for protection against asbestos fibers. However, its major failure was the inability of the worker to maintain a complete face seal over more than a few minutes. Consequently, asbestos contaminated workroom air bypassed the filter media and was inhaled directly into the respiratory system. I clearly recognized this fatal defect in my practice in the early 1970s.

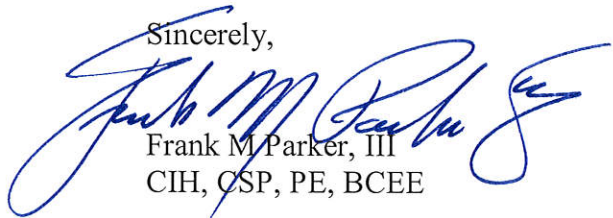
Opinions

Based on my review of the information in this record describing Mrs. Sharon Heckel's occupational and community environment, her activities, and her living in houses near the Weyerhaeuser plant, and based on my special training, knowledge and expertise as a Certified Industrial Hygienist, including review of numerous scientific peer reviewed articles, publications and other relevant information, including but not limited to those summarized above, I have formed the following opinions to a reasonable degree of scientific certainty:

1. Mrs. Sharon Heckel was significantly exposed to asbestos as a result of:
 - a. Asbestos released from her contaminated clothing whenever her contaminated clothing was disturbed in her car, other offsite facilities and at her houses;
 - b. Asbestos released from her house, furniture, etc. as a result of asbestos contamination brought into the house on her person, clothing, shoes, etc. or as a result of community contamination resulting from Weyerhaeuser plant operations;
 - c. Asbestos released from the Weyerhaeuser plant into the general vicinity of her houses as a result of trucks loaded with asbestos waste driving in the neighborhood and emitting visible dust into the area; and
 - d. Asbestos emitted into the general community environment from plant operations, waste haulage and improper disposal activities on site and the local dump.
2. Her work in the Mineral Core Room in the 1973-1974 time frame;
3. Each and every asbestos exposure originating in or from the Weyerhaeuser plant added to Mrs. Heckel's asbestos dose and thereby increased her risk of developing asbestos related disease; and
4. The 3M 8710 provided substantially no protection for Mrs. Heckel against the inhalation of respirable asbestos fibers.

If you have any questions or if I can be of further service please let me know.

Sincerely,



Frank M. Parker, III
CIH, CSP, PE, BCEE

References

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- ² **Ramazzini, B.** *Diseases of Workers*, 1713, p. 255, Translated by W.C. Wright, Hafner Publishing Company, New York, 1964.
- ³ **Tolman, W.H.**, *Safety, Methods for Preventing Occupational and Other Accidents and Diseases*, Harper & Brothers Publishers, New York and London, 1913, p.249.
- ⁴ _____, *Safety and Health Standards*, United States Department of Labor, paragraph H 3 (b), 1951 p.23.
- ⁵ **Wagner, W. C.**, *Diffuse Pleural Mesothelioma and Asbestos Exposure in the North Western Cape Province*, British Journal of Industrial Medicine, 1960, 17, pp. 260-271.
- ⁶ _____, *Dusts, Fumes, and Mists in Industry*, Data Sheet # 531, National Safety Council, 1963, p.15.
- ⁷ **Newhouse, M. L. et al**, *Epidemiology of Mesothelioma Tumors in the London Area*, Annals of the New York Academy of Sciences, Vol. 132, 1965, pp. 579 – 588.
- ⁸ **Harries, P. G. et al**, *Asbestos Hazards in Naval Dockyards*, Annals of Occupational Hygiene, Vol. 11, 1968, p.140.
- ⁹ **Ibid**, p.138.
- ¹⁰ _____, *Occupational Exposure to Asbestos*, National Institute for Occupational Safety and Health, 1972, pp. III-9, III-22.
- ¹¹ **Ibid**, p.I-8, I-9.
- ¹² _____, *Asbestos*, The Occupational Health and Safety Administration, June 7, 1972, paragraph (d)(3) & (4).
- ¹³ **Anderson, H. A.**, *Household-Contact Asbestos Neoplastic Risk*, Annals New York Academy of Sciences, Vol. 271. 1976, pp. 387-399.
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- ¹⁷ **Grandjean, P.**, *Indirect Exposures: The Significance of Bystanders at Work and Home*, American Industrial Hygiene Association Journal, December 1986, pp. 819 – 824.
- ¹⁸ _____, “The Worker’s Family Protection Act”, 29 U.S.C. 671a, 1992.
- ¹⁹ _____, “Report to Congress on Worker’s Home Contamination Study Conducted under The Workers’ Family Protection Act (29 U.S.C. 671a), National Institute for Occupational Safety and Health, Cincinnati, Ohio, September 1995.
- ²⁰ **Ibid**, p. 6.
- ²¹ **Roggli, V. L., et al**: *Malignant Mesothelioma and Occupational Exposure to Asbestos: A Clinicopathological Correlation of 1445 Cases*, Duke University Medical Center, 2002.
- ²² **Ibid**, p 20.
- ²³ **Carter, R. F.**, *The Measurement of Asbestos Dust Levels in a Workshop Environment*, AWRE Report No. 0 28/70, United Kingdom Atomic Energy Authority, July 1970, Table 4.
- ²⁴ **Millette, J.R.**, *Examination of Shirt Sample*, Report # MVA4181, MVA, Inc., August 15, 2000, p 1.
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- ³⁰ **Mangold, C. A.**, “The Effects of Contaminated Clothing on the Sampling of Low Level Asbestos Fiber Concentrations in the Breathing Zone of Workers”, Presentation to the Pacific Northwest Section, American Industrial Hygiene Association, Portland, OR, October 11, 1984

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³² **Egilman, D. D. & Druar, N. M.**, *Commentary on "Evaluation of take home (para-occupational) exposure to asbestos and disease: a review of the literature"*, Donovan et al, International Journal of Occupational and Environmental Health, Vol. 19, No. 3, 2013, pp. 163-168.

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³⁵ _____, *List of Hazardous Air Pollutants*, Environmental Protection Agency, CFR March 31, 1971, p. 5931.

³⁶ _____, *Subpart B, National Emission Standard for Asbestos*, CFR Friday, April 6, 1973, pp.8829-8830.

Expert Materials of Frank Parker III, CIH

Cascino Vaughan Law Offices (CVLO) submits the following materials as part of the Rule 26 reports for all cases in which Frank Parker III submits a report.

1. Frank Parker's qualifications, including a list of all publications authored in the previous 10 years, are attached.
2. A list of cases in which, during the previous 4 years, Frank Parker has testified as an expert at trial or by deposition, is attached.
3. A statement of the compensation to be paid to Frank Parker and Caliche Ltd. for study and testimony in these cases, is attached.



Solid Solutions Seeking Sustainability

FRANK M. PARKER, III

EDUCATION

Bachelor of Science in Civil Engineering, Virginia Military Institute, 1964.
Masters in Aerospace Operations Management (Systems Management) University of Southern California, 1970.

CERTIFICATIONS

Certified Industrial Hygienist (CIH) in Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene #781, 1973.
Certified Safety Professional (CSP) by the Board of Certified Safety Professionals #3523, 1973.
Professional Engineer (PE), State of California #0457, 1976; State of Texas #77486, 1993.
Diplomate Environmental Engineer (DEE) in General Environmental Engineering by the American Academy of Environmental Engineers #86-20050, 1988.
Licensed Individual Asbestos Consultant (LAC) in the State of Texas by the Texas Department of Health #10-5301, 1993.

APPOINTMENTS

Adjunct Assistant Professor of Industrial Hygiene, Environmental Sciences, School of Public Health, University of Texas, Houston, TX, 1979 – 1986.
Texas Department of Health Asbestos Advisory Committee, 1992 to 2002,
Chairman 1996 - 1997.
Colonel, U.S. Air Force Reserve (Retired).

PROFESSIONAL EXPERIENCE

January 2004 to present: Partner and Chief Executive Officer of Caliche, Ltd.
Responsible for leading the consulting and litigation services team.

November 1992 to December 2003: Executive Vice President for Operations of Environmental Technologies, Inc. Responsible for providing management of day to day field operations as well as provide consultation in areas of expertise.

March 1982 to November 1992: President of Environmental Technologies, Inc., (formerly Southwest Occupational Health Services) Magnolia, Texas, a consulting company providing support to a variety of clients in the areas of program management, audits, forensic technology, management, and education as applied to the occupational health and environmental issues.

April 1, 1980 to February 15, 1982: Manager, Loss Control, Tenneco, Inc., Houston, Texas. Responsible for managing the loss control, industrial hygiene and safety activities of Tenneco, Inc. Responsible for corporate safety areas.

- June 16, 1978 to March 31, 1980: Manager, Industrial Hygiene, Tenneco, Inc., Houston, Texas. Responsible for managing the Industrial Hygiene activities of Tenneco, Inc. Represented Tenneco at the national levels on matters dealing with occupational health. Chairman of the American Petroleum Institute's Health and Safety Regulatory Committee which had overall responsibility for regulatory endeavors of the petroleum industry. Provided technical and managerial guidance and consultations to Tenneco worldwide.
- July 1, 1977 to June 15, 1978: Manager, Industrial Hygiene Services, Shell Oil Company, Houston, Texas. Managed the industrial hygiene consulting program for all Shell facilities. Director of the Corporate Industrial Hygiene Laboratory. Was responsible for providing input to governmental regulatory processes. Chairman of the American Petroleum Institute's task force on benzene.
- October 1, 1974 to June 30, 1977: Staff Industrial Hygienist, Shell Oil Company, Houston, Texas. Responsible for the industrial hygiene programs for the Shell Oil Company, (Shell Oil, Chemical, Development and Pipeline Companies and subsidiaries). Managed, coordinated, and directed the activities of three regional industrial hygiene programs.
- 1972 to September 30, 1974: Industrial Hygienist, Shell Oil Company, Walnut Creek, California. Responsible for providing industrial hygiene consultation to the approximately 130 Shell Company facilities west of Denver, Colorado.
- 1968 to 1972: Chief, Bio-Environmental Engineering Section, 648th U.S.A.F. Dispensary, Hickam Air Force Base, Hawaii. Provided consulting services to the Pacific Basin Area by identifying, documenting and recommending corrective action for problem areas in Industrial Hygiene, Occupational Medicine and Air/Water Pollution.
- 1964 to 1968: Chief Military Public Health, Occupational Medicine Services Section, 2791st U.S.A.F. Hospital, Hill Air Force Base, Utah. Provided consultant services to the Ogden Air Material Area by identifying, documenting, and recommending corrective action for problem areas on the fields of Noise, Toxicology, Radiation, and Air/Water Pollution as pertained to Air Force Bases, Test Ranges, and Occupational Medicine Programs.
- 1964: Student, U.S. Air Force School of Aerospace Medicine, Brooks Air Force Base, Texas. Course of study-Bioenvironmental Engineering. 16 week school on industrial hygiene, occupational diseases, public health, water supply, waste water disposal, entomology, health physics and environmental engineering.

HONORS

- U.S. Air Force Commendation Medals for Meritorious Service, 1964-1968 and 1968-1972.
- Outstanding Young Men of America, 1971.
- Outstanding U.S.A.F. Bio-Environmental Engineer (Reserve), 1981.
- Certificate of Appreciation from the American Petroleum Institute, 1982.

SCIENTIFIC PUBLICATIONS and PRESENTATIONS

- "Bio-Environmental Engineering - A Capitalistic Approach", *U.S. Air Force Medicine Service Digest*, Vol. XXI, No. VI, June 1970, pp. 24-26, U.S. Government Printing Office.
- "Community Noise", *U.S. Navy Action 71 Symposium*, February 19, 1971, pp. 81-84, NAVRAC Engineering Command, FPO SF 96610 Public Speaking and Lectures.
- "Mesityl Oxide Hygienic Guide", *American Industrial Hygiene Association Journal*, Hygiene Guide Series, June 1978.
- "The Applications and Limitations of Quantitative Risk Assessment in Industry". *International Symposium on Risk and Safety Analysis*, July 7, 1982 at Wissenschaftszentrum, Bonn, Germany, 1982.

Guest Editorial: "Do You Know Where You're Going?", *American Industrial Hygiene Association Journal*, Vol. 40, No. 6, p. A-4, July 1979.

"Expert Witnessing", Session 3A of the *Proceedings of the 1988 Professional Conference on Industrial Hygiene*, American Academy of Industrial Hygiene, pp. 35-49, September 21-23, 1988, Memphis, Tennessee.

"Caution: Noise Testers Can Get Goose Bumps", *Ecolibrium*, Vol. 4, No. 2, pp. 6-8, Summer 1975, Shell Oil Company.

"How Can We Protect the Worker?", *The Synergist*, April 15, 2000.

"Exposure assessment of residents living near a wood treatment plant." James Dahlgren, Raphael Warshaw, Randy D. Horsak, Frank M. Parker, III, and Harpreet Takkhar. *Environmental Research* 92 (2003) 99-109, Academic Press.

"The Relationship Between Several Variables and Benzene Exposure in the Maritime Industry", F.Parker, R. Conrad, and G. Luther, #283, Exposure Assessment Strategies 2, American Industrial Hygiene Conference and Expo, Atlanta, Georgia, May 13, 2004.

"Ethylene Dichloride: Neuropsychological Effects of Chronic Exposure", Ruffalo CA, Gouvier WD, Pinkston JB, Tucker KA, Hartman DE, Dahlgren JG, Parker FM. *Abstracts / Archives of Clinical Neuropsychology* 15 (2000) 653-850.

"In Praise of the Generalist" *The Synergist*, pp. 26-27, March 2006.

"Twenty-five years of toxic tort litigation: Lessons learned – Challenges defined", Parker, FM, *Journal of Chemical Health & Safety*, May – June 2008, pp. 9-13.

"The Future of Occupational Exposure Limits", Adkins, C., et al. *The Synergist*, October 2009, pp. 46 – 48.

"Respirator fit testing for H1N1 Flu protection", *Journal of Chemical Health & Safety*, March/April 2011.

PROFESSIONAL SOCIETIES

American Academy for Industrial Hygiene.

American Industrial Hygiene Association.

Gulf Coast Chapter, American Industrial Hygiene Association (past President).

Yuma Pacific Southwest Chapter of AIHA (past President).

American Society of Safety Engineers.

National Society of Professional Engineers.

American Academy of Environmental Engineers.

U. S. PATENT

Apparatus and Method for Sampling Hazardous Material. Patent No.: 4, 754, 655, July 5, 1988.

OTHER ACTIVITIES

Past President, Gulf Coast Chapter of the American Ind. Hygiene Association, Houston, Texas

Founder and Past Chairman of the Greater Industrial Hygiene Council, Houston, Texas.

Past Chairman and Board of Directors, Yuma-Pacific Southwest and Gulf Coast Chapters AIHA.

Lecturer on various occupational health subjects in courses sponsored by NIOSH, U.S. Public Health Service, U.S. Department of Labor and U.S. Air Force, American Industrial Hygiene Association, and Texas A&M University Industrial Hygiene Department.

Frank M. Parker, III - Testimony Record

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|------------|---|---|--|---------------------|--------------|-----------------------|
| 1/26/10 | William Adams, et al v. Alcolac, Inc. and Rhodia, Inc. | 23 rd Judicial District Court of Brazoria County, TX | M. Martin Maloney Martin, LLP Houston, TX | Deposition | | Mustard |
| 1/27/10 | Beatrice Graf, et al v. Benjamin Moore & Company, et al | Civil District Court Parish of Orleans, LA | J. Dean Simon, Eddins & Greenstone Dallas, TX | Deposition | Mesothelioma | Asbestos |
| 2/5/10 | Sammy H. and Annie Terry v. (3M) Minnesota Mining & Mfg. Co. | 295 th Judicial District Court, Harris County, TX | M. Martin Maloney, Martin Houston, TX | Deposition | Silicosis | Silica |
| 2/10/10 | Richard & Nita Nolen v. E.I. Du Pont de Nemours and Company, et al | 60 th Judicial District Court, Jefferson County, TX | K. Hyde Provost Umphrey Beaumont, TX | Deposition | Asbestosis | Asbestos |
| 3/10/2010 | Gnewuch v. Allied Insulation Supply Co., Inc., et al | Circuit Court of Milwaukee County, WI | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Mesothelioma | Asbestsos |
| 3/26/2010 | Cantrell v. Genuine Parts Co. (NAPA) | Alameda County Superior Court, CA | M. Stewart Kazan, McClain | Deposition | Mesothelioma | Asbestos |
| 4/14-15/10 | Algoma case | Circuit Court of Kewaunee County, WI | B. McCoy Cascino Vaughan Chicago, IL | Depositioin | Mesothelioma | Asbestos |
| 4/22/10 | Wilbur R. & Marilyn Eske v. Allied Insulation Supply Co., Inc., et al | Circuit Court of Milwaukee County, WI | B. McCoy Cascino Vaughan Chicago, IL | Trial | Mesothelioma | Asbestos |
| 4/27/10 | John & Carol Thompson v. Chevron USA, Inc., et al. | 172 nd Judicial District Court, Jefferson County, TX | K. Hyde Provost Umphrey Beaumont, TX | Trial | AML | Benzene |
| 5/7/2010 | Elodie Granier Rome, et al v. Northrop Grumman Systems Corp., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement LaPlace, LA | Deposition | Mesothelioma | Asbestos |
| 7/9/2010 | Muehlberger v. Aldag/Honold Mechanical, Inc., et al | Circuit Court of Milwaukee County, WI | B. McCoy Cascino Vaughan Chicago, IL | Deposition | Mesothelioma | Asbestos |
| 8/11/2010 | Colleen Comer Marchand, et al v. Asbestos Defendants, Anco Insulations, Inc., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement LaPlace, LA | Deposition | Mesothelioma | Asbestos |
| 8/27/2010 | Floyd D. Gladden, Jr., et al v. Atlantic Richfield Co., et al | Asbestos Court Harris County, TX | C. Waters Waters & Kraus Dallas, TX | Deposition | Mesothelioma | Asbestos |
| 9/1/10 | Nancy Wallace v. Catalin Marblette Corporation | Circuit Court of Milwaukee County, WI | B. McCoy Cascino Vaughan Chicago, IL | Trial Preservation | Mesothelioma | Asbestos |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|-----------|--|---|---|---------------------|------------------|-----------------------|
| 9/13/10 | Ronny & Barbara Douglas v. Armstrong International, Inc., et al | Circuit Court for Davidson County, Tennessee 20 th Judicial District of Nashville | G. Henderson Waters & Kraus Dallas, TX | Deposition | Mesothelioma | Asbestos |
| 9/15/10 | Ronny & Barbara Douglas v. Armstrong International, Inc., et al | Circuit Court for Davidson County, Tennessee 20 th Judicial District of Nashville | G. Henderson Waters & Kraus Dallas, TX | Trial Preservation | Mesothelioma | Asbestos |
| 10/15/10 | Gordon and Emily Bankhead v. Allied Pakcing & Supply Inc., et al | Alameda County Superior Court, CA | A. Huston Kazan, McClain | Deposition | Mesothelioma | Asbestos |
| 10/25/10 | Joe & Gloria Freeman v. Able Supply Company, et al | District Court of Harris County, TX | J. Celum Waters & Kraus Dallas, TX | Deposition | Mesothelioma | Asbestos |
| 10/29/10 | Kenneth Dowers, et al v. Advocate Mines Ltd., et al | Los Angeles Superior Court, CA | J. Janofsky Waters, Kraus, Paul Los Angeles, CA | Deposition | Mesothelioma | Asbestos |
| 11/10/10 | Joe & Gloria Freeman v. Able Supply Company, et al | District Court of Harris County, TX | J. Celum Waters & Kraus Dallas, TX | Deposition | Mesothelioma | Asbestos |
| 12/29/10 | Wendy Granier v. Northrop Grumman Ship Building, et al | Civil District Court Parish of Orleans, LA | L. Unglesby Unglesby & Marionneaus Baton Rouge, LA | Deposition | Mesothelioma | Asbestos |
| 1/7/11 | Raymond & Karen Eurich v. Allied Insulation Supply Co., et al | Circuit Court of Milwaukee County, WI | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Lung Cancer | Asbestos |
| 1/14/11 | Freddie Joseph Dupre v. Todd Shipyards Corporation, et al. | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 1/17/11 | J.C. & Betty Williams v. Asbestos Defendants, et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Asbestosis | Asbestos |
| 1/28/2011 | Sarah Calegon Trosclair and Joseph Anthony Trosclair v. Northrop Grumman Shipbuilding, Inc., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 2/7/11 | J.C. & Betty Williams v. Asbestos Defendants, et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Asbestosis | Asbestos |
| 2/9/2011 | Howard Hardenstein v. Asbestos Corporation Limited, et al | Civil District Court Parish of Orleans, LA | J. Dillon Folsom, LA | Deposition | Mesothelioma | Asbestos |
| 2/28/2011 | James Willis Blackman v. El Paso Energy E.S.T. Co., et al | Civil Distric Court Parish of St. Bernard, LA | W. Watson Baggett, McCall Lake Charles, LA | Deposition | Multiple Myeloma | Benzene |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|------------|---|---|---|---------------------|------------------|--------------------------------------|
| 3/18/2011 | Henry & Melissa Sylve v. Freeport Sulphur Company, Inc. | 25 th Judicial District Court, Parish of Plaquemines, LA | S. Doody Martzell & Bickfork New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 3/21/2011 | Robert Anthony Norman, Sr. and Diana Norman v. Asbestos Defendants, et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Multiple Myeloma | Asbestos |
| 4/8/2011 | Kathleen Blackwell v. PPG Industries, Inc. | Office of Workers' Compensation State of Louisiana | T. Filo Cox, Cox, Filo, Camel Wilson Lake Charles, LA | Deposition | | Perchloroethylene, Trichloroethylene |
| 4/15/2011 | Merline v. Building Service Industrial Supply, Inc., et al | Circuit Court Brown County, WI | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Mesothelioma | Asbestos |
| 4/26/2011 | Timothy Ivan Usry and Karen Kaltenbach Usry v. Baha Towers Limited Partnership, et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos, Mold |
| 5/24/2011 | Patricia Easton v. A.R. Wilfley & Sons, et al | 3 rd Judicial District Court, Sweetwater County, WY | J. Ledlie Motley Rice, LLC Mt. Pleasant, SC | Deposition | | Asbestos |
| 5/27/2011 | Tangela Brown, et al v. Georgia Gulf Lake Charles, LLC | 14 th Judicial District Court Calcasieu Parish, LA | W. Watson Baggett, McCall Lake Charles, LA | Deposition | | Multiple Chemicals |
| 6/3/2011 | Nolan Barrios, III v. Chubb Insurance Co., et al | U.S. Dept. of Labor, Office of Workers Compensation, District 6, LA | J. Dillon Folsom, LA | Deposition | Asbestosis | Asbestos |
| 6/8-9/2011 | Colleen Comer Marchand, et al v. Asbestos Defendants, Anco Insulations, Inc., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Trial | Mesothelioma | Asbestos |
| 6/13/2011 | Robert & Ruth Ashcraft v. Allied Packing & Supply, Inc., et al | Alameda County Superior Court, CA | A. Huston Kazan, McClain Oakland, CA | Deposition | Mesothelioma | Asbestos |
| 6/23/2011 | Wendy Granier, et al v. Northrop Grumman Shipbuilding, et al | Civil District Court Parish of Orleans, LA | L. Unglesby Unglesby & Marionneaux Baton Rouge, LA | Trial | Mesothelioma | Asbestos |
| 7/1/2011 | Haskell & Shizue Stillman v. Allied Packing & Supply, Inc., et al | Alameda County Superior Court, CA | W. Ruiz Kazan, McClain Oakland, CA | Deposition | Mesothelioma | Asbestos |
| 7/7/2011 | Tangela Brown, et al v. Georgia Gulf Lake Charles, LLC | 14 th Judicial District Court Calcasieu Parish, LA | W. Watson Baggett, McCall Lake Charles, LA | Trial | | Multiple Chemicals |
| 7/25/2011 | Jeanette Garnett Pichon, et al v. Bayer Cropscience, et al | Civil District Court Parish of Orleans, LA | G. Roussel LaPlace, LA | Trial | Mesothelioma | Asbestos |
| 8/3/2011 | Joe and Gloria Freeman v. Able Supply Company, et al | U.S.D.C. Eastern District of Pennsylvania | K. Cole Waters & Kraus Dallas, TX | Deposition | Mesothelioma | Asbestos |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|------------|--|---|---|---------------------|--------------|-----------------------|
| 8/26/2011 | Patricia Easton v. A.R. Wilfley & Sons, et al | 3 rd Judicial District Court, Sweetwater County, WY | J. Ledlie Motley Rice, LLC Mt. Pleasant, SC | Deposition | | Asbestos |
| 9/12/2011 | Wayne J. St. Pierre v. Northrop Grumman Shipbuilding, Inc., et al | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 9/19/2011 | Gerald Erving Roberts v. E.I. du Pont de Nemours and Company, et al | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 10/24/2011 | Fischer v. American Standard Inc., et al. | Circuit Court, Milwaukee County, WI | R. McCoy Cascino Vaughan Chicago, IL | Trial Preservation | Mesothelioma | Asbestos |
| 10/28/2011 | Jerry P. Billiot v. Eagle Insulation, LLC and CNA Casualty of California | U.S. Dept. of Labor, Seventh Compensation District | J. Dillon John F. Dillon, PLC Folsom, LA | Deposition | Asbestosis | Asbestos |
| 12/7/2011 | Marie R. Saul v. Northrop Grumman Ship Systems, Inc., et al | Civil District Court, Parish of Orleans, LA | A. McEnaney Hissey, Kientz, LLP Austin, TX | Deposition | Mesothelioma | Asbestos |
| 1/4/2012 | Charles Krik | U.S. District Court for the Eastern District of Pennsylvania | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Lung Cancer | Asbestos |
| 1/4/2012 | Cecil Dillman | U.S. District Court for the Eastern District of Pennsylvania | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Lung Cancer | Asbestos |
| 1/4/2012 | Deon Wright | U.S. District Court for the Eastern District of Pennsylvania | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Lung Cancer | Asbestos |
| 1/5/2012 | John and Lillian Loritz v. Building Service Industrial Supply, Inc., et al | Circuit Court Brown County, WI | R. McCoy Cascino Vaughan Chicago, IL | Deposition | Mesothelioma | Asbestos |
| 1/12/2012 | Audry and James Streng v. American Standard, Inc., et al | Circuit Court Milwaukee County, WI | R. McCoy Cascino Vaughan Chicago, IL | Trial | Mesothelioma | Asbestos |
| 1/16/2012 | Rick & Eve Fenstermaker v. Ace Hardware Corporation, et al | Alameda County Superior Court, CA | A. Huston, Kazan, McClain | Deposition | Mesothelioma | Asbestos |
| 2/13/2012 | Ellis Bourque, Sr. v. Peter Kiewit Sons Co. et al | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 4/3/2012 | Tangela Brown, et al v. Georgia Gulf Lake Charles, LLC | 14 th Judicial District Court Calcasieu Parish, LA | W. Watson Baggett, McCall Lake Charles, LA | Trial | | Multiple Chemicals |
| 4/20/2012 | Danny Langford, et al v. Halliburton Company, et al | United States District Court, District of Oregon, Portland Division | M. Doyle Doyle Raizner LLP Houston, TX | Deposition | | Sodium Dichromate |
| 5/4/2012 | Ramona Stites, et al v. 3M Company, et al | Middlesex County Superior Court, , MA | D. Zacharopoulos Waters & Kraus Baltimore, MD | Deposition | Mesothelioma | Asbestos |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|------------|---|--|--|---------------------|--------------|-----------------------------|
| 5/9/2012 | Roger G. Klibert v. Onebeacon America Insurance Co., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement LaPlace, LA | Deposition | Mesothelioma | Asbestos |
| 5/11/2012 | Dorsey McCann v. The Sherwin Williams Co., et al | 28 th Judicial District Court Parish of LaSalle, LA | W. Watson Baggett, McCall Lake Charles, LA | Trial | Leukemia | Paint Chemicals Exposure |
| 5/18/2012 | Daniel R. and Patricia Tischer v. American Standard, Inc., et al | Circuit Court Milwaukee County, WI | R. McCoy Cascino Vaughan Chicago, IL | Trial Preservation | | Asbestos |
| 5/21/2012 | Sally Gros Vedros v. Northrop Grumman Shipbuilding, Inc., et al | U.S. District Court Eastern District of Pennsylvania | G. Roussel Roussel & Clement LaPlace, LA | Deposition | Mesothelioma | Asbestos |
| 7/6/2012 | Delores Martin v. Exxon Mobil Corp., et al | 18 th Judicial District Court, Parish of West Baton Rouge, LA | L. Unglesby Unglesby Law Firm Baton Rouge, LA | Deposition | Lung Cancer | Asbestos |
| 7/11/2012 | Ancel L. McGuffee, et al v. Freeport-McMoran Energy, LLC | Civil District Court, Parish of Orleans, LA | J. Jeansonne, Jr. Jeansonne & Remondet, LLC Lafayette, LA | Deposition | Mesothelioma | Asbestos |
| 7/13/2012 | Michael T. Hackler, M.D. v. P&O Ports Louisiana, Inc., et al | United States District Court Middle District of Louisiana | D. Papillion Walters, Papillion, et al Baton Rouge, LA | Deposition | Mesothelioma | Asbestos |
| 7/13/2012 | George Landess, et al v. Baton Rouge Marine Contractors Inc., et al | United States District Court Middle District of Louisiana | D. Papillion Walters, Papillion, et al Baton Rouge, LA | Deposition | Mesothelioma | Asbestos |
| 8/3/2012 | Anthony Maliden, Jr. v. Liberty Mutual Insurance Company, et al | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement LaPlace, LA | Deposition | Lung Cancer | Asbestos |
| 8/6/2012 | Richard and Eleanor Chattin v. Certainteed Corporation, et al | Los Angeles County Superior Court, CA | B. Adams Napoli, Bern, Ripka El Segundo, CA | Deposition | Lung Cancer | Asbestos |
| 8/7/2012 | Delores Martin v. Exxon Mobil Corp., et al | 18 th Judicial District Court, Parish of West Baton Rouge, LA | L. Unglesby Unglesby Law Firm Baton Rouge, LA | Deposition | Lung Cancer | Asbestos |
| 10/12/2012 | Danny Langford, et al v. Halliburton Company, et al | United States District Court, District of Oregon, Portland Division | M. Doyle Doyle Raizner LLP Houston, TX | Trial | | Sodium Dichromate |
| 10/15/2012 | Michael and Carol Corbett v. Agilent Technologies, et al | Alameda County Superior Court, CA | W. Ruiz Kazan McClain Oakland, CA | Deposition | Mesothelioma | Asbestos |
| 10/19/2012 | Nena Salaam v. Alfa Laval, Inc., et al | Los Angeles County Superior Court, CA | B. Zadorozny Weitz & Luxenberg | Deposition | Mesothelioma | Asbestos |
| 10/22/2012 | Joseph A. Pourciau vs. The Travelers Insurance co. et.al. | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement LaPlace, LA | Deposition | Mesothelioma | Asbestos |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|------------|--|--|---|---------------------|--------------|-----------------------|
| 11/5/2012 | Thomas DiPollina v. 3M Company | Alameda County Superior Court, CA | B. Zadorozny Weitz & Luxenberg | Deposition | Mesothelioma | Asbestos |
| 11/9/2012 | Robert Lenartz v. Hardie-Tynes, LLC, et al | Alameda County Superior Court, CA | B. Zadorozny Weitz & Luxenberg | Deposition | Mesothelioma | Asbestos |
| 11/30/2012 | Barbara Church v. Dana Kepner Company, Inc. | United States District Court, District of Colorado | S. Hendler Hendler Law, PC Austin, TX | Deposition | Mesothelioma | Asbestos |
| 12/4/2012 | Billiot, et al v. Georgia Gulf Lake Charles, LLC | 14 th Judicial District Court Calcasieu Parish, LA | W. Watson Baggett, McCall Lake Charles, LA | Trial | | Multiple Chemicals |
| 12/7/2012 | Michael Jordan v. Georgia Pacific, LLC, et al | Alameda County Superior Court, CA | B. Zadorozny Weitz & Luxenberg | Deposition | Mesothelioma | Asbestos |
| 12/12/2012 | Delores Martin v. Exxon | 18 th Judicial District Court W. Baton Rouge, LA | L. Unglesby Unglesby Law Firm Baton Rouge, LA | Trial | Lung Cancer | Asbestos |
| 12/17/2012 | Logan L. Lefort v. American Motorists Ins. Co., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 1/11/2013 | Kenneth Ingels, et ux v. Century Indemnity Company, et al | 14 th Judicial District, Parish of Calcasieu, LA | J. Gaughan Baggett, McCall Lake Charles, LA | Deposition | Mesothelioma | Asbestos |
| 1/14/2013 | Maurice Joseph Becnel v. American Motorists Insurance Company, et al | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 1/17/2013 | Vandermeuse v. Allied Insulation Co., Inc., et al | Circuit Court Milwaukee County, WI | R. McCoy Cascino Vaughan Chicago, IL | Trial | Mesothelioma | Asbestos |
| 2/15/2013 | Brenda Gaither, et al v. Eagle, Inc., et al | Terrebonne Parish 32 nd Judicial District Court, LA | J. Ardoin Ardoin Law Firm Kenner, LA | Deposition | Mesothelioma | Asbestos |
| 2/18/2013 | Kenneth Ingels, et ux, v. Century Indemnity Company, et al | 14 th Judicial District Court Parish of Calcasieu, LA | J. Gaughan Baggett, McCall Lake Charles, LA | Deposition | Mesothelioma | Asbestos |
| 3/21/2013 | Roy Thomas Blanchard v. Huntington Ingalls, Inc., et al | Civil District Court, Parish of Orleans, LA | L. Gertler Gertler Law Firm New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 4/3/2013 | Miriam Sam | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 4/11/2013 | Logan Lefort v. American Motorists Insurance Company, et al | Civil District Court, Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Trial | Mesothelioma | Asbestos |
| 5/8/2013 | Dorothy Carter White, et al v. Entergy Gulf States Louisiana, LLC, et al | 19 th Judicial District Court, Parish of East Baton Rouge, LA | J. Gaughan Baggett, McCall Lake Charles, LA | Deposition | Mesothelioma | Asbestos |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|-----------|--|--|--|---------------------|--------------------|-----------------------|
| 5/10/2013 | Deon Wright | U.S. District Court, Eastern District, PA | R. McCoy Cascino, Vaughan Chicago, IL | Trial | Lung Cancer | Asbestos |
| 5/14/2013 | Dorothy Carter White, et al v. Entergy Gulf States Louisiana, LLC, et al | 19 th Judicial District Court, Parish of East Baton Rouge, LA | J. Gaughan Baggett, McCall Lake Charles, LA | Trial | Mesothelioma | Asbestos |
| 6/13/2013 | Margie B. Johnson, et al v. Cooper T. Smith, et al | Civil District Court, Parish of Orleans, LA | P. Hoffman Landry, Swarr, Cannella, LLC New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 6/13/2013 | Newal Hunter v. Cooper T. Smith, et al | Civil District Court, Parish of Orleans, LA | P. Hoffman Landry, Swarr, Cannella, LLC New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 6/24/2013 | Charles E. Brunson v. Apex Environmental Services, et al | Circuit Court Mobile County, AL | R. Ramsey Huey Law Firm Mobile, AL | Deposition | Systemic Poisoning | Unknown |
| 6/28/2013 | Chemical Waste Management | 14 th Judicial District Court Parish of Orleans, LA | W. Watson Baggett, McCall Lake Charles, LA | Deposition | | Chemical Release |
| 7/17/2013 | Charles Landry, Dec., Rosemary Landry, Surviving Spouse v. Baton Rouge Marine Contractors, et al | U.S. Department of Labor, Office of Administrative Law Judges | J. Dillon John F. Dillon, PLC Folsom, LA | Deposition | Asbestosis | Asbestos |
| 7/19/2013 | Leonard Abadie, Jr. v. Asbestos Corporation Ltd., et al | 24 th Judicial District Court, Parish of Jefferson, LA | J. Dillon John F. Dillon, PLC Folsom, LA | Deposition | Mesothelioma | Asbestos |
| 7/22/2013 | Edward Anthony Alberes, et al v. Anco Insulations, Inc., et al | Civil District Court. Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 7/30/2013 | Chemical Waste Management | 14 th Judicial District Court Parish of Orleans, LA | W. Watson Baggett, McCall Lake Charles, LA | Trial | | Chemical Release |
| 8/2/2013 | George Gregory v. Arvinmeritor, Inc., et al | Alameda County Superior Court, CA | S. Worsey Levin Simes LLP San Francisco, CA | Deposition | Mesothelioma | Asbestos |
| 8/19/2013 | Walter T. Tillery v. Union Carbide n/k/a Dow Chemical | United States Department of Labor, Office of Administrative Law Judges | J. Dillon John F. Dillon, PLC Folsom, LA | Deposition | Asbestosis | Asbestos |
| 8/23/2013 | Dannal "Dan" Sharp v. Asbestos Corp. Ltd., et al | 24 th Judicial District Court, Parish of Jefferson, LA | D. Cannella Landry, Swarr, Cannella New Orleans, LA | Deposition | Asbestosis | Asbestos |
| 8/26/2013 | Timothy Ivan Usry and Karen Kaltenbach Usry v. Baha Towers Limited Partnership, et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos, Mold |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|------------|---|---|--|---------------------|--|-----------------------|
| 8/28/2013 | James Willis v. BP North America, Inc., et al | | M. Kilgore Humphrey, Farrington & McClain, PC Independence, MO | Deposition | Lung Cancer | Asbestos |
| 9/13/2013 | Nadine E. Wolfe | | D. Pourciau Pourciau Law Firm Kenner, LA | Deposition | Mesothelioma | Asbestos |
| 10/7/2013 | Rudolph Peter Nunez v. OneBeacon Insurance Co., et al | Civil District Court Parish of Orleans, LA | G. Roussel Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 10/9/2013 | Harold P. Guarino v. Albert Bossier, as an Executive Offi | Civil District Court Parish of Orleans, LA | E. Woods Waters & Kraus Dallas, TX | Deposition | Mesothelioma | Asbestos |
| 10/15/2013 | Ancel L. McGuffee, et al v. Freeport-McMoran Energy, LLC | Civil District Court Parish of Orleans, LA | J. Jeansonne Jeansonne & Remondet, LLC Lafayette, LA | Trial | Mesothelioma | Asbestos |
| 10/18/2013 | Hourcade v. Avondale | Civil District Court Parish of Orleans, LA | H. Babin Gertler Law Firm New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 10/21/2013 | Nadine E. Wolfe | | D. Pourciau Pourciau Law Firm Kenner, LA | Deposition | Mesothelioma | Asbestos |
| 10/28/2013 | Tarsia & Breck Williams v. Lockheed Martin Corp., et al | United States District Court, Eastern District of Pennsylvania | C. Didriksen Didriksen Law Firm New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 10/30/2013 | Wilma Jean Morgan, et al v. A.W. Chesterton, et al | Alameda County Superior Court, CA | G. Greenwood Kazan, McClain Oakland, CA | Deposition | Mesothelioma | Asbestos |
| 11/21/2013 | Larry Kinser | United States Distric Court for the Eastern District of Pennsylvania | R. McCoy Cascino Vaughan Chicago, IL | Trial Preservation | Lung Cancer | Asbestos |
| 12/9/2013 | Wilma Jean Morgan, et al v. A.W. Chesterton, et al | Alameda County Superior Court, CA | G. Greenwood Kazan, McClain Oakland, CA | Trial | Mesothelioma | Asbestos |
| 12/13/2013 | Louis Genusa v. Asbestos Corporation Ltd., et al | 18 th Judicial District Court Parish of West Baton Rouge, LA | F. Swarr Landry & Swarr New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 2/13/2014 | Ferdinand J. Fabre, Jr. v. Ramsay, Scarlett & Co., et al | U.S. Department of Labor Office of Workers' Compensation Programs | J. Dillon John F. Dillon, PLC Folsom, LA | Deposition | Interstitial Pulmonary Fibrosis (may be related to Asbestosis) | Asbestos |
| 3/5/2014 | Craig Steven Arabie, et al v. CITGO Petroleum Corporation, R & R Construction, Inc. | Fourteenth Judicial District Court, Parish of Calcasieu, State of Louisiana | W. Watson Baggett, McCall Lake Charles, LA | Deposition | Spill Emissions | SO2, VOC |

| Date | Case Name | Court | Client | Nature of Testimony | Injury | Chemical or Substance |
|-------------|---|---|--|---------------------|-----------------|-----------------------|
| 3/7/2014 | Julie Lavigne v. Shell Oil Company, et al | 24 th Judicial District Court Parish of Jefferson State of Louisiana | R. Fernandez Law Office of Richard Fernandez Metairie, LA | Deposition | Mesothelioma | Asbestos |
| 3/20/2014 | Tarsia Williams & Breck Williams v. Lockheed Marting Corp., et al | United States District Court Southern District of Texas | C. Didriksen Didriksen Law Firm New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 3/27/2014 | Dean Tessitore, et al v. Chevron Oronite Company, LLC, et al | Civil District Court Parish of Orleans, LA | T. Falcon Falcon Law Firm, APLC Marrero, LA | Deposition | B-cell Lymphoma | Benzene/Naphtha |
| 4/17/2014 | Newton v. Anco Insulation, et al | Civil District Court Parish of Orleans, LA | H. Babin Gertler Law Firm New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 6/9/2014 | James Clark, Jr. v. Huntington Ingalls, Inc., et al | Civil District Court Parish of Orleans, LA | H. Babin Gertler Law Firm New Orleans, LA | Deposition | Mesothelioma | Asbestos |
| 6/25/2014 | Lowe | Civil District Court Parish of Orleans, LA | J. Clement Roussel & Clement La Place, LA | Deposition | Mesothelioma | Asbestos |
| 7/9-10/2014 | Dean Tessitore, et al v. Chevron Oronite Company, LLC, et al | Civil District Court Parish of Orleans, LA | T. Falcon Falcon Law Firm, APLC Marrero, LA | Trial | B-cell Lymphoma | Benzene/Naphtha |
| 7/14/2014 | Louis Genusa v. Asbestos Corporation Ltd., et al | 18 th Judicial District Court Parish of West Baton Rouge, LA | F. Swarr Landry & Swarr New Orleans, LA | Trial | Mesothelioma | Asbestos |
| 8/14/2014 | Margaret Turner, et al v. Anco Insulation, Inc., et al | 18 th Judicial District Court Parish of Iberville, LA | L. Unglesby Unglesby Law Firm Baton Rouge, LA | Deposition | Mesothelioma | Asbestos |



FEE SCHEDULE January 1, 2014

| | |
|-----------------------------------|------------|
| Principal | \$450/Hour |
| Executive Consultant | \$375/Hour |
| Engineer/Industrial Hygienist III | \$175/Hour |
| Engineer/Industrial Hygienist II | \$125/Hour |
| Engineer/Industrial Hygienist I | \$100/Hour |
| Research Assistant II | \$125/Hour |
| Research Assistant I | \$75/Hour |
| Superintendent | \$100/Hour |
| Technician III | \$85/Hour |
| Overtime* | \$100/Hour |
| Technician II | \$65/Hour |
| Overtime* | \$90/Hour |
| Technician I | \$45/Hour |
| Overtime* | \$65/Hour |
| Administrative II | \$65/Hour |
| Administrative I | \$50/Hour |

*Overtime rate applied to time above 8 hours per day, weekends and holidays. All rates subject to conditions of contract.

Miscellaneous Expenses: Travel and business expenses incurred on behalf of the client are invoiced at our cost plus 20%.

Caliche, Ltd. Form #22